

## THE CONTROL OF THE MILK SUPPLY.

*Frost v. The Aylesbury Dairy Company.*

[FROM A CORRESPONDENT.]

THE recent case of *Frost v. The Aylesbury Dairy Company*, tried before Mr. Justice Grantham and a Special Jury, in which the plaintiff succeeded, is one of great public importance and interest. For not only does it raise an interesting point of law, as to which leave has been given to appeal; but it presents a scientific problem as to the exact causation of milkborne typhoid fever, as well as considerations of the utmost moment in the domain of public-health administration. The novel legal point appears, briefly, to be the application of the doctrine of "implied warranty," under the Sale of Goods Act, to a guarantee that milk is free from the germs of disease. As this point will be shortly argued, we do not propose to deal with it further. But, at the same time, comment upon the facts elicited during the trial, would seem desirable and appropriate.

The plaintiff in the case, a resident of Ealing, sued the Aylesbury Dairy Company for out-of-pocket expenses incurred during the fatal illness from typhoid fever of his wife in July, 1903, and recovered the full amount claimed, namely, £106. It appeared that the plaintiff's wife was one of twenty-three Ealing people, living in different parts of that borough, and under varying conditions of domestic environment, who, in the latter part of July, 1903, suffered from typhoid fever. It is a notable fact that every one of these 23 persons partook, at one time or another antecedent to their illness, of the Company's milk. Also they were attacked within a few days of each other, so that, allowing a fortnight for the period of incubation of the fever, they had all been infected with the poison of the disease in question in the first week or so of July. Further, they were nearly all females, and there was an unusual proportion of domestic servants amongst them. Moreover, the fatality of the outbreak was very low. *Prima facie*, these facts suggested milk infection, and the hypothesis was largely strengthened by the facts observed in other parts of the area of the Company's supply—namely, that in Acton two-thirds, in Chiswick one-half, and in Hanwell one-third of those attacked about this same period of the year with typhoid fever were found to have drunk the Company's milk (though the total numbers in the two last places were very small).

The milk, which was thus under suspicion, came from a Berkshire farm direct to the Ealing dépôt, and it was found that a lad on the farm (son of the dairyman) was laid up with typhoid fever in July and died early in August. The date of his attack was fixed at July 23rd, so that presumably he was infected about July 9th. It was thus seen that this boy and the Ealing and other sufferers received the poison of typhoid fever at about the same time, and this was made much of by the defence, who properly urged that the boy could not have infected the Ealing, Acton, Chiswick, and Hanwell people. But this did not exclude the possibility of a cause common to him and to them. This was, it was alleged, very probably the polluted water of certain wells at the Berkshire farm. For it was acknowledged by witnesses for the defence that such wells existed at this farm, though they had been repeatedly condemned. In particular, it was admitted that a shallow well in a shed where the milk churns were washed every day had come under reprobation. But it was contended that the farmer had undertaken by his contract not to use the water of this well for washing the churns, and that, as a matter of fact, such water was used only for swilling the floor of the shed.

It was averred that the only water used for washing the churns was from a spring more than two miles away, the water of which was fetched daily in a tank cart, and, by repeated bacteriological tests, had been found of remarkable purity. The judge expressed the opinion that it would be inconsistent with human nature to suppose that farm labourers engaged in rinsing milk churns would, in case of shortage, go four miles to fetch water when they had another source at hand.

It was, in addition, elicited that the tank used for this spring water held only about 180 gallons, and that nearly 400 gallons a day were used at the farm for purposes of refrigeration and cleansing. So that the cart would have to go to the spring twice every day, whereas it was given in evidence that it was only occasionally that the cart went a second time to the spring, certainly not every day. It therefore seemed not improbable that other water was at

times used for cleansing the churns, and that this was derived from the well in the shed.

An additional fact supported the thesis of infective milk, namely, the illness from typhoid fever in August, 1903, of a milker who had undoubtedly consumed the milk when the plaintiff's case presumed it to be infective. The suggestion of a general power for mischief of the well water at this farm was strengthened by the occurrence of two cases of typhoid fever amongst the farm hands during the summer of 1904. It was admitted by both parties that these cases were in all likelihood due to the earlier ones in July and August, 1903, owing to the infection of the water of the farm wells by the contents of earth closets applied to the ground in their vicinity.

Though the Court was not asked to try the question of the causation of the Ealing epidemic, which, indeed, was not at issue between the parties, it may be observed that there was not complete demonstration of the infective part played by the farm water, since the actual specific infection of this water by the germ of typhoid fever was not shown. But this is a common and usual result in such inquiries, and the hypothesis of an unrecognized, so-called "ambient," case, put forward by the plaintiff as preceding the simultaneous attack of the farm lad and the Ealing people in July, 1903, would not be inconsistent with the occurrences that were observed. In this connexion it is to be noted that headache and sickness were commonly attributed at the farm to the use of the local water.

It further appeared in evidence that the medical officer of health had not only repeatedly condemned the wells at this farm, but that he had reported to the local sanitary authority against the water supply of the village in which the farm is situated. But nothing had been done to remedy matters in this regard, chiefly on the ground of expense. The verdict of the jury was no surprise.

Professor Sims Woodhead, Dr. Thresh, and Professor MacFadyen were called for the defence, but their evidence as experts amounted to very little, and seemed based too much upon theoretical and negative considerations to be of any definite value in eliciting the truth. Thus, Professor Sims Woodhead doubted whether this was a milk epidemic at all on account of the paucity of cases at Ealing and Acton, etc., stating that he would have expected an incidence of 500 or more cases if milk had been at fault. Dr. Thresh referred especially to the fact that the proportion of children to total attacks amongst the consumers of the Company's milk was only 1 in 3, whilst the proportion amongst the consumers of other milks was 1 in 2. Professor MacFadyen's evidence was purely negative, dealing with the absence of disease amongst the farm cows, and with the routine bacterioscopic examination of the Company's milk.

It is quite open to argue that the undoubted paucity of cases might have been referable to a greater dilution of the typhoid poison at a given time, or to lessened potency to distribute itself then. At any rate, milk epidemics of typhoid embracing only forty odd cases are not unknown. Again, Dr. Thresh's differences amounted to little, and were based upon very small numbers. The sudden outbreak at one time over a wide area of the Company's supply undoubtedly pointed to milk, and this is the view that the jury took.

The opinion of the defendants' experts that the farm lad's illness did not cause the epidemic at Ealing, etc., was fully accepted by the plaintiff, who ascribed it to a cause common to both—polluted well water. It is, perhaps, significant that the plaintiff called no experts, only actual sufferers or their parents, and the medical men who attended them.

Apart from the legal points involved, as to which we offer no opinion, the case illustrates the importance of securing the absolute purity and wholesomeness of water supplies at farms from which milk is derived. We are aware that this is not always an easy matter, owing to the absence of co-operation of the local sanitary authorities. And in this particular case, the Aylesbury Company appear to have done a good deal. For instance, they secured the services of the medical officer of health who made a monthly routine inspection of the Berkshire farm, a practice which, we understand, the Company carries out generally throughout the area of its farm supplies, and this officer appears to have been frequently there. But the obviously weak spot in its armour was allowing the well in the churn shed to be used at all. It ought to have been closed long before. We are not without sympathy for this Company, for their precautions are in many respects in advance of those of many other similar concerns, and it was not disputed that their Ealing dépôt was above reproach.

Further, they at once stopped the milk coming into Ealing and the other parts affected, and took every step in their power to prevent a recurrence of the disease.

But many large questions are involved in the subject of this case. First, the whole subject of the control of milk supplies needs overhauling, with a view to reconstruction on a new basis. Further powers are needed by sanitary authorities, both at the point of departure and the point of entrance of milk from country districts. It would be better to place the control at both points in the hands of a larger body, such as the county council, rather than the smaller district councils. For local councils, whether rural or urban, are nearly always supine and apathetic and often actually recalcitrant in putting in force the considerable powers that the Legislature gives them at present. Even borough councils and larger municipalities differ in their eagerness to appreciate the magnitude of the risks and issues involved.

Secondly, another most important matter is the ever-recurring question of rural water supplies. Here, again, it would seem advisable to grant increased executive power in regard of this matter to county councils, though, in that case, it would seem necessary to make the appointment of a county medical officer compulsory and not voluntary as it is now. In this connexion it is interesting to notice that in a recent Parliamentary return Berkshire was mentioned as one of the English counties which had not appointed a medical officer.

Lastly, the Local Government Board possess under the various Public Health Acts ample powers to deal with defiant local authorities who refuse to remedy the notorious sanitary deficiencies of their districts. But the Board, for some reason or other, whether political or not, rarely put forth these powers. It seems high time that, pending greater devolution upon county councils, they should more frequently put these powers in force.

### LITERARY NOTES.

HERR HENRY GRAACK has collected the laws and ordinances of all countries relative to quackery and the abusive practice of the healing art. The book is published by G. Fischer of Jena.

Messrs. Kegan Paul, Trench, Trübner, and Co. will shortly publish a *Manual of Fever Nursing*, by Professor Reynold Webb Wilcox.

Dr. J. Johnston, of Bolton, has reprinted some notes of a trip to the South of the Peninsula under the title, *In Moorish Spain*. He recounts with an appreciative delight, which communicates itself to the reader, the wonders which he saw at Granada, Seville, and Cordova. A notable feature in his record of his travels is the absence of the tone of ignorant contempt characteristic of the British Philistine who makes himself and his country ridiculous abroad. Dr. Johnston was pleased with everything he saw in Spain, except the beggars. The notes are illustrated with original photographs of the Alhambra, the Giralda, and the great Mosque of Cordova.

The *Dental Surgeon* is the title of a new "weekly review of dental science, devoted to the interests of the profession." The "foreword" states that the object of the new journal is "to supply news—reliable news of the scientific, the practical and the social aspects of the dental profession at home and in other lands." The *Dental Surgeon* is not, it is declared, "the organ or mouthpiece of any society or clique;" neither is it "to be circulated merely as an advertisement pamphlet." The contents of the first number, now before us, are varied and interesting. The editor is Mr. Robert Manning, L.D.S.Eng.; the publishers Messrs. Baillière, Tindall, and Cox.

Colonel Frank Howard's *Handbook of Medical Organizations of Foreign Armies* has been translated into Spanish and amplified by Dr. José Gamero Gomez, Medico-Mayor of the Spanish Army, who contributes an introduction. A review of the original was published in the *BRITISH MEDICAL JOURNAL* of August 9th, 1902, p. 404. Dr. Gomez has been awarded the Cross of Military Merit with pension for the translation.

We have received copies of *Good Words* and the *Sunday Magazine* for November. With these issues those old-established and deservedly popular monthly magazines enter upon a new phase of existence. They are the first brought out by the new proprietors of Isbister and Company—Sir Isaac Pitman and Sons, Limited. The new programmes for both magazines are of an attractive character.

Arrangements have been made with the Syndics of the Cambridge University Press to begin the issue of a *Journal of Agricultural Science*, under the editorship of Messrs. T. H. Middleton, T. B. Wood, R. H. Biffen, and A. D. Hall, in consultation with other gentlemen. The *Journal* will publish only definitely scientific work in agricultural science, and will not include the results of the ordinary trial of manures and varieties for demonstration or commercial purpose. It is proposed to issue the *Journal* as material accumulates, aiming at quarterly parts of about 100 royal 8vo pages, four parts to constitute a volume. Among those who have promised to support the *Journal* are: Professor H. E. Armstrong, F.R.S., Professor M. J. R. Dunstan, Dr. Bernard Dyer, Professor Liveing, Mr. A. E. Shipley, Dr. J. Augustus Voelcker, and Professor Marshall Ward. The first number will be published in January, 1905.

The first number (October, 1904) of the *American Journal of Urology*, edited by Dr. Henry G. Spooner, of New York, and published by the Grafton Press, Fifth Avenue, New York, has appeared. It contains papers by Dr. Howard Kelly of Baltimore, Dr. Winfield Ayres of New York, and Dr. Ferdinand Cathelin of Paris, together with a large number of abstracts. The American Urological Association and several other genito-urinary organizations have appointed the new journal as their official organ. The editorial Board includes among many others the names of Drs. Howard A. Kelly, Robert T. Morris of New York, and William H. Porter of New York.

For centuries master-apothecaries in France, before they were allowed to open a pharmacy, had to take an oath. The following is the text of the oath as used from the middle of the thirteenth century:

I swear and promise before God, Author and Creator of all things, one in essence and distinguished in three persons everlastingly blessed, that I will observe on every point all the following articles. And first I swear and promise to live and die in the Christian faith; to love and honour my parents to the best of my ability; to honour, respect, and serve, as far as in me lies, not only the doctors of medicine who have instructed me in the knowledge of the precepts of pharmacy, but also my teachers and the master pharmacists under whom I have learnt my business; not to speak ill of my former doctors, master-apothecaries, or any one else; to do all I can for the honour, glory, adornment, and majesty of medicine; not to teach its secrets and curiosities to idiots and ungrateful persons; to do nothing rashly without the advice of physicians and only in the hope of gain; to give no medicament, or purge, to those labouring under any disease without first taking counsel of some learned doctor; not in any way to touch the shameful and forbidden parts of women, unless in case of urgent necessity, that is to say when some remedy has to be applied to them; to disclose to no one any secret entrusted to me; never to give any one any kind of poison to drink, nor to advise any one to give such a potion even to his greatest enemies; never to give any abortive potion; never in any way to attempt to induce the expulsion of the fetus from the belly of the mother unless acting on the advice of the doctor; to dispense exactly without adding or leaving out anything the prescriptions of the doctor as far as they are in accordance with the rules of the art; to use no succedaneum or substitute without taking counsel of some one of greater knowledge than myself; to repudiate and avoid like the plague the scandalous and utterly pernicious methods of practice now employed by empirical charlatans and alchemists to the great shame of the magistrates who tolerate them; to give help and succour alike to all who shall employ me, and lastly to keep no bad or old drug in my shop. May the Lord bless me always, as I shall observe these things!

How long this oath continued to be taken there is no evidence to show. It may be inferred, however, that it had fallen into desuetude before the Revolution; for no allusion to it is contained in the law of 21 Germinal, year xi, of the first French Republic, relating to schools of pharmacy. That enactment simply provided that pharmacists must present their diplomas to the prefect, before whom he should take an oath that he would practise his art with "probity and fidelity." But it is not at all clear how long even this formality was insisted on; and it is certain that by the beginning of the twentieth century the apothecaries' oath had become a matter of history. Yet in an action recently brought by the *Chambre Syndicale et Société de Prévoyance des Pharmaciens de la Seine* against two persons for the illegal practice of pharmacy, one of the grounds of the prosecution was that the defendants had not taken the thirteenth-century oath quoted above. The Court, however, decided that the oath itself as commencing with a definite profession of faith was contrary to the principles of public right, and that the obligation to take it had been "implicitly abrogated" by later legislation. We venture to think that this decision is, from some points of view, to be regretted, for, if the form of the oath is obsolete, its substance is excellent.

In the first volume of *Studies from the Department of Neurology*